REPORT: 100 NEW REACTORS WOULD RESULT IN UP TO \$4 TRILLION IN EXCESS COSTS FOR U.S. TAXPAYERS AND RATEPAYERS

Combination of Efficiency and Renewables Much More Economical Than New Nuclear Reactors With Skyrocketing Construction Costs; "Low Balling" of Cost Estimates Imperils "Nuclear Renaissance," Just as Runaway Costs Sank the "Great Bandwagon Market" of 1970s.

WASHINGTON, D.C.///June 18, 2009///The likely cost of electricity for a new generation of nuclear reactors would be 12-20 cents per kilowatt hour (KWh), considerably more expensive than the average cost of increased use of energy efficiency and renewable energies at 6 cents per kilowatt hour, according to a major new study by economist Dr. Mark Cooper, a senior fellow for economic analysis at the Institute for Energy and the Environment at Vermont Law School. The report finds that it would cost \$1.9 trillion to \$4.1 trillion more over the life of 100 new nuclear reactors than it would to generate the same electricity from a combination of more energy efficiency and renewables.

Titled "The Economics of Nuclear Reactors," Cooper's analysis of over three dozen cost estimates for proposed new nuclear reactors shows that the projected price tags for the plants have quadrupled since the start of the industry's so-called "nuclear renaissance" at the beginning of this decade – a striking parallel to the eventually seven-fold increase in reactor costs estimates that doomed the "Great Bandwagon Market" of the 1960s and 1970s, when half of planned reactors had to be abandoned or cancelled due to massive cost overruns.

The study notes that the required massive subsidies from taxpayers and ratepayers would not change the real cost of nuclear reactors, they would just shift the risks to the public. Even with huge subsidies, nuclear reactors would remain more costly than the alternatives, such as efficiency, biomass, wind and cogeneration.

Dr. Mark Cooper said: "We are literally seeing nuclear reactor history repeat itself. The 'Great Bandwagon Market' that ended so badly for consumers in the 1970s and 1980s was driven by advocates who confused hope and hype with reality. It is telling that in the few short years since the so-called 'Nuclear Renaissance' began there has been a four-fold increase in projected costs. In both time periods, the original low-ball estimates were promotional, not practical; they were based on hope and hype intended to promote the industry."

Commenting on the study, former U.S. Nuclear Regulatory Commission member Peter Bradford said: "This study makes clear that new nuclear reactors can only be built if taxpayers or customers assume the very large risks that investors would normally bear in the U.S. economy. Such subsidy to a mature industry – already heavily subsidized -- is contrary to the fundamental free enterprise principles that protect customers and allocate resources efficiently. The risks of cost overruns, reactor cancellation, poor operation and the development of less costly competitors are real. All have happened to nuclear power in the U.S. before. If the enormous financial burden of assuming these risks falls on the taxpayers (in the form of loan guarantees), it will increase our national deficit and crowd out other borrowers needing federal credit support. If it falls on customers (in the form of ratemaking guarantees), it will create additional economic hardship and job loss ... Setting a quota of 100 new nuclear reactors by a certain date presumes – against decades of evidence to the contrary - that politicians can pick technological winners. Such a policy combines distraction, deception, debt and disappointment in a mixture reminiscent of other failed federal policies in recent years."

To pin down the likely cost of new nuclear reactors, the Cooper report first dissects three dozen recent projections of the cost of new nuclear reactors. Second, it places those projections in the context of the long sweep of the history of the industry with a database of the costs of 100 reactors built in the U.S. between 1971 and 1996. Third, it examines those costs in comparison to the cost of alternatives available today to meet the need for electricity. Finally, it considers a range of qualitative factors including

environmental concerns, risks and subsidies that affect decisions about which technologies to utilize in an environment where public policy requires constraints on carbon emissions.

Among the key findings of the Cooper study are the following:

- On average, the final cohort of "Great Bandwagon Market" reactors cost seven times as much as the cost projection for the first reactors of the Great Bandwagon Market.
- The cost projections put out early in today's so-called "nuclear renaissance" were about one-third of what one would have expected, based on the reactors completed in the 1990s.
- The most recent cost projections for new reactors are, on average, over four times as high as
 the initial projections used to spark the "nuclear renaissance." Unlike the 1960s and 1970s,
 when the vendors and government officials monopolized the preparation of cost analyses,
 today Wall Street and independent analysts have come forward with more realistic and
 therefore, much higher estimates of the cost of nuclear reactors.
- Utilities and Wall Street analysts agree that nuclear reactors will not be built without massive direct subsidies from the federal government and/or ratepayers.
- Analysis of the technical potential to deliver economically practicable options for low-cost, low-carbon
 approaches indicates that the supply is ample to meet both electricity needs and carbon reduction
 targets for three decades.
- Considering economic risk and the environmental, safety and security issues associated with nuclear reactors shows that not only are nuclear reactors among the worst options we have available from the point of view of consumer pocketbook economics, they are also among the worst from the societal point of view.

The full study is available online at http://www.vermontlaw.edu/Academics/Environmental Law Center/Institutes and Initiatives.htm.

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EDITOR'S NOTE: A streaming audio replay of the news event will be available on the Web at http://www.vermontlaw.edu/Academics/Environmental Law Center/Institutes and Initiatives.htm as of 6 p.m. EDT on June 18, 2009.